

MINOR SOURCE OPERATING PERMIT

OFFICE OF AIR QUALITY

Spartech Plastics
3454 North Detroit Street
Warsaw, Indiana Zip 46581

(herein known as the Permittee) is hereby authorized to ***construct and*** operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 085-14149-00026	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 10, 2001 Expiration Date: August 10, 2006

TABLE OF CONTENTS

A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]
- A.2 Emission Units and Pollution Control Equipment Summary

B GENERAL CONSTRUCTION CONDITIONS

- B.1 Permit No Defense [IC 13]
- B.2 Definitions
- B.3 Effective Date of the Permit [IC 13-15-5-3]
- B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]
- B.5 Modification to Permit [326 IAC 2]
- B.6 Minor Source Operating Permit [326 IAC 2-6.1]
- B.7 Permit Term [326 IAC 2-6.1-7]

C SOURCE OPERATION CONDITIONS

- C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]
- C.2 Preventive Maintenance Plan [326 IAC 1-6-3]
- C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]
- C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]
- C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]
- C.6 Permit Revocation [326 IAC 2-1-9]
- C.7 Opacity [326 IAC 5-1]

Testing Requirements

- C.8 Performance Testing [326 IAC 3-6]

Compliance Monitoring Requirements

- C.9 Compliance Monitoring [326 IAC 2-1.1-11]
- C.10 Monitoring Methods [326 IAC 3]
- C.11 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

Record Keeping and Reporting Requirements

- C.12 Malfunctions Report [326 IAC 1-6-2]
- C.13 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-3]
- C.14 General Record Keeping Requirements [326 IAC 2-6.1-2]
- C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]
- C.16 Annual Notification [326 IAC 2-6.1-5(a)(5)]

D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emission Limitations and Standards

- D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

- D.1.2 Particulate Matter (PM)

D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emission Limitations and Standards

- D.2.1 Particulate Matter (PM) [326 IAC 6-2-3(e)]

D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emission Limitations and Standards

D.3.1 Volatile Organic Compounds (VOC)

**Annual Notification
Malfunction Report**

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a plastic compounding plant.

Authorized Individual: Bruce Harrison
Source Address: 3454 North Detroit Street, Warsaw, IN 46581
Mailing Address: P.O. Box 95, Warsaw, IN 46581
Phone Number: 219-267-9776
SIC Code: 2821
County Location: Kosciusko
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD
Area Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

- (a) One (1) profile extrusion production department, located in buildings 101 and 102, consisting four (4) extrusion lines, blending, and cutting operations, having a maximum production capacity of 1000 pounds of product per hour. Particulate matter emissions are controlled using one (1) baghouse (identified as BH-11), which exhausts at stack EU-01/BH-11.
- (b) One (1) flat stock production department, located in buildings 105 and 106, consisting of one (1) squaring saw, ten (10) extrusion lines, one (1) scrap granulator, and blending operations, having a maximum production capacity of 5,310 pounds of product per hour. Particulate matter emissions from the blending operations are controlled using two (2) baghouses (identified as BH-2 and BH-8), which exhaust to stacks EU-06/BH-2 and EU-06/BH-8. Particulate matter emissions from the squaring saw are controlled using one (1) baghouse (identified as BH-15), which exhausts at stack EU-2/BH-15.
- (c) One (1) calender production department, located in building 107, for blending, mixing, milling, and calendering, consisting of one (1) size 3D banbury mixer, two (2) 60 inch milles, and one (1) 72 inch calender, having a maximum production capacity of 1,750 pounds of product per hour. Particulate matter emissions are controlled using three (3) baghouses (identified as BH-1, BH-14, and BH-9), which exhaust to EU-06/BH-1, EU-06/BH-14, and EU-3/BH-9.
- (d) One (1) dicer production line, located in building 107, for blending, milling, dicing and cutting operations, consisting of one (1) size D banbury mixer, and one (1) 84 inch mill. The maximum production capacity of the dicer production line is 6,000 pounds per hour. Particulate matter emissions from the blending operations are controlled using two (2) baghouses (identified as BH-1 and BH-14), which exhaust at stacks EU-06/BH-1 and EU-06/BH-14. Particulate matter emissions from the dicing and cutting operations are

controlled using one (1) baghouse (identified as BH-4), which exhausts at stack EU-04/BH-4). Particulate emissions from the milling operations are controlled using one (1) baghouse (identified as BH-10), which exhausts at stack EU-04/BH-10.

- (e) One (1) FCM production department, located in building 107, consisting of two (2) extrusion lines, blending operations, dicing and cutting, having a maximum production capacity of 350 pounds per hour, with particulate matter emissions controlled using one (1) baghouse (identified as BH-13), exhausting at stack EU-05/BH-13.
- (f) One scrap plastic granulation facility, located in building 102, for granulation and blending operations, having a maximum production capacity of 2,500 pounds per hour, with particulate matter emissions controlled using one (1) baghouse (identified as BH-12), exhausting at stack EU-06/BH-12.
- (g) Material storage and handling for plastic granules and powders, consisting of three (3) powder storage silos and a pneumatic conveyance system, with particulate matter emissions controlled using three (3) baghouses (identified as BH-5, BH-6 and BH-7); exhausting at stacks EU-07/BH-5, EU-07/BH-6, and EU-07/BH-7 and thirteen (13) cyclones (identified as C-A through C-M). These baghouses and cyclones are considered to be integral to the process.
- (h) One (1) portable pneumatic sandblasting unit used for calender roll etching with particulate matter emissions controlled by a cyclone and dust collector.
- (i) One (1) 1.0 MMBtu per hour, natural gas-fired, high-pressure boiler (identified as H-1), with emissions exhausting at stack EU-09/H-1.
- (j) One (1) 0.75 MMBtu per hour, natural gas-fired, low-pressure boiler (identified as H-2), with emissions exhausting at stack EU-09/H-2.
- (k) One (1) 2.45 MMBtu per hour, natural gas-fired oil heater (identified as H-3), with emissions exhausting at stack EU-09/H-3.
- (l) Six (6) natural gas-fired, process line dryers: three (3) dryers each having a maximum rated heat input of 0.14 MMBtu per hour and three (3) dryers each having a maximum rated heat input of 0.20 MMBtu per hour.
- (m) Organic solvent degreasing operations using cold cleaner degreaser units.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), Permit Administration & Development Section.
 - (1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

- (c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).
- (e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

B.7 Permit Term [326 IAC 2-6.1-7]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications or amendments of this permit do not affect the expiration.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of all criteria pollutants is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.
- (c) Any change or modification which may increase potential to emit to 10 tons per year of any single hazardous air pollutant, twenty-five tons per year of any combination of hazardous air pollutants, or 100 tons per year of any other regulated pollutant from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Testing Requirements

C.8 Performance Testing [326 IAC 3-6]

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source

submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.9 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.11 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
- (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan,

shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

Record Keeping and Reporting Requirements

C.12 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality(OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.13 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record

keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.14 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;

- (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.16 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.
- (c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

- (d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

- (a) One (1) profile extrusion production department, located in buildings 101 and 102, consisting four (4) extrusion lines, blending, and cutting operations, having a maximum production capacity of 1000 pounds of product per hour. Particulate matter emissions are controlled using one (1) baghouse (identified as BH-11), which exhausts at stack EU-01/BH-11.
- (b) One (1) flat stock production department, located in buildings 105 and 106, consisting of one (1) squaring saw, ten (10) extrusion lines, one (1) scrap granulator, and blending operations, having a maximum production capacity of 5,310 pounds of product per hour. Particulate matter emissions from the blending operations are controlled using two (2) baghouses (identified as BH-2 and BH-8), which exhaust to stacks EU-06/BH-2 and EU-06/BH-8. Particulate matter emissions from the squaring saw are controlled using one (1) baghouse (identified as BH-15), which exhausts at stack EU-2/BH-15.
- (c) One (1) calender production department, located in building 107, for blending, mixing, milling, and calendaring, consisting of one (1) size 3D banbury mixer, two (2) 60 inch milles, and one (1) 72 inch calender, having a maximum production capacity of 1,750 pounds of product per hour. Particulate matter emissions are controlled using three (3) baghouses (identified as BH-1, BH-14, and BH-9), which exhaust to EU-06/BH-1, EU-06/BH-14, and EU-3/BH-9.
- (d) One (1) dicer production line, located in building 107, for blending, milling, dicing and cutting operations, consisting of one (1) size D banbury mixer, and one (1) 84 inch mill. The maximum production capacity of the dicer production line is 6,000 pounds per hour. Particulate matter emissions from the blending operations are controlled using two (2) baghouses (identified as BH-1 and BH-14), which exhaust at stacks EU-06/BH-1 and EU-06/BH-14. Particulate matter emissions from the dicing and cutting operations are controlled using one (1) baghouse (identified as BH-4), which exhausts at stack EU-04/BH-4. Particulate emissions from the milling operations are controlled using one (1) baghouse (identified as BH-10), which exhausts at stack EU-04/BH-10).
- (e) One (1) FCM production department, located in building 107, consisting of two (2) extrusion lines, blending operations, dicing and cutting, having a maximum production capacity of 350 pounds per hour, with particulate matter emissions controlled using one (1) baghouse (identified as BH-13), exhausting at stack EU-05/BH-13.
- (f) One scrap plastic granulation facility, located in building 102, for granulation and blending operations, having a maximum production capacity of 2,500 pounds per hour, with particulate matter emissions controlled using one (1) baghouse (identified as BH-12), exhausting at stack EU-06/BH-12.
- (g) Material storage and handling for plastic granules and powders, consisting of three (3) powder storage silos and a pneumatic conveyance system, with particulate matter emissions controlled using three (3) baghouses (identified as BH-5, BH-6 and BH-7); exhausting at stacks EU-07/BH-5, EU-07/BH-6, and EU-07/BH-7 and thirteen (13) cyclones (identified as C-A through C-M). These baghouses and cyclones are considered to be integral to the process.
- (h) One (1) portable pneumatic sandblasting unit used for calender roll etching with particulate matter emissions controlled by a cyclone and dust collector.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the profile extrusion, flat stock, calendar, dice, FCM, scrap plastic granulation, sandblasting and pneumatic conveyance systems facilities shall not exceed the following emission limits:

Process/Facility	Process Weight (Tons/hr)	PM Emission Limit (Pounds/hr)
Profile Extrusion Production Department	0.5	2.58
Flat Stock Production Department	2.66	7.9
Calendar Production Department	0.875	3.7
Dice Production Line	3.0	8.6
FCM Production Department	0.175	1.3
Scrap Plastic Granulation Facility	1.25	4.8
Sandblasting Unit	0.24	1.6
Pneumatic Conveyance Systems:		
C-A	10	19.2
C-B through C-I, C-L and C-M	0.225	1.5
C-J and C-K	0.7	3.2
BH-5	0.43	2.3
BH-6	0.56	2.8
BH-7	0.88	3.8

The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
 P = process weight rate in tons per hour

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.2 Particulate Matter (PM)

The baghouses and cyclones for PM control shall be in operation at all times the profile extrusion, flat stock, calendar, dice, FCM, scrap plastic granulation, sandblasting and pneumatic conveyance systems are in operation.

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

- (i) One (1) 1.0 MMBtu per hour, natural gas-fired, high-pressure boiler (identified as H-1), with emissions exhausting at stack EU-09/H-1.
- (j) One (1) 0.75 MMBtu per hour, natural gas-fired, low-pressure boiler (identified as H-2), with emissions exhausting at stack EU-09/H-2.
- (k) One (1) 2.45 MMBtu per hour, natural gas-fired oil heater (identified as H-3), with emissions exhausting at stack EU-09/H-3.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.2.1 Particulate Matter (PM) [326 IAC 6-2-3(e)]

Pursuant to 326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from each boiler shall be limited to 0.6 pounds per MMBtu heat input.

SECTION D.3

EMISSIONS UNIT OPERATION CONDITIONS

(m) Organic solvent degreasing operations using cold cleaner degreaser units.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.3.1 Volatile Organic Compounds (VOC)

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a emissions unit for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under
326 IAC 2-6.1-5(a)(5).

Company Name:	Spartech Plastics
Address:	3454 North Detroit Street
City:	Warsaw, IN 46581
Phone #:	(219) 267-9776
MSOP #:	

I hereby certify that Spartech Plastics is ☒ still in operation.
☐ no longer in operation.

I hereby certify that Spartech Plastics is ☒ in compliance with the requirements of MSOP
085-14149-00026.
☐ not in compliance with the requirements of MSOP
085-14149-00026.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-5967

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6
and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ? _____, 25 TONS/YEAR SULFUR DIOXIDE ? _____, 25 TONS/YEAR NITROGEN OXIDES ? _____, 25 TONS/YEAR VOC ? _____, 25 TONS/YEAR HYDROGEN SULFIDE ? _____, 25 TONS/YEAR TOTAL REDUCED SULFUR ? _____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ? _____, 25 TONS/YEAR FLUORIDES ? _____, 100 TONS/YEAR CARBON MONOXIDE ? _____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ? _____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ? _____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ? _____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ? _____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. () _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____ / ____ / 20 ____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____ / ____ / 20 ____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO₂, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

PAGE 1 OF 2

Please note - This form should only be used to report malfunctions

**applicable to Rule 326 IAC 1-6 and to qualify for
the exemption under 326 IAC 1-6-4.**

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Spartech Plastics
P.O. Box 958
Warsaw, Indiana 46581-0958

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make
these representations on behalf of _____.
(Company Name)
4. I hereby certify that Spartech Plastics, 3454 North Detroit Street, Warsaw, IN 46581, completed construction of the squaring saw and baghouse on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on March 21, 2001 and as permitted pursuant to Construction Permit No. CP-085-14149, Plant ID No. 085-00026 issued on _____.
5. Additional (?operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit. (Delete this statement if it does not apply.)

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 20 _____.
My Commission expires: _____

Signature

Name (typed or printed)

Section 10: Affidavit.wpd 7/00

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name: Spartech Plastics
Source Location: 3454 North Detroit Street, Warsaw, IN 46581
County: Kosciusko
SIC Code: 2821
Operation Permit No.: 085-14149-00026
Permit Reviewer: ERG/AB

The Office of Air Quality (OAQ) has reviewed an application from Spartech Plastics relating to the construction and operation of a plastic compounding plant.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) profile extrusion production department, located in buildings 101 and 102, consisting four (4) extrusion lines, blending, and cutting operations, having a maximum production capacity of 1000 pounds of product per hour. Particulate matter emissions are controlled using one (1) baghouse (identified as BH-11), which exhausts at stack EU-01/BH-11.
- (b) One (1) flat stock production department, located in buildings 105 and 106, consisting of one (1) squaring saw, ten (10) extrusion lines, one (1) scrap granulator, and blending operations, having a maximum production capacity of 5,310 pounds of product per hour. Particulate matter emissions from the blending operations are controlled using two (2) baghouses (identified as BH-2 and BH-8), which exhaust to stacks EU-06/BH-2 and EU-06/BH-8. Particulate matter emissions from the squaring saw are controlled using one (1) baghouse (identified as BH-15), which exhausts at stack EU-2/BH-15.
- (c) One (1) calender production department, located in building 107, for blending, mixing, milling, and calendering, consisting of one (1) size 3D banbury mixer, two (2) 60 inch milles, and one (1) 72 inch calender, having a maximum production capacity of 1,750 pounds of product per hour. Particulate matter emissions are controlled using three (3) baghouses (identified as BH-1, BH-14, and BH-9), which exhaust to EU-06/BH-1, EU-06/BH-14, and EU-3/BH-9.
- (d) One (1) dicer production line, located in building 107, for blending, milling, dicing and cutting operations, consisting of one (1) size D banbury mixer, and one (1) 84 inch mill. The maximum production capacity of the dicer production line is 6,000 pounds per hour. Particulate matter emissions from the blending operations are controlled using two (2) baghouses (identified as BH-1 and BH-14), which exhaust at stacks EU-06/BH-1 and EU-06/BH-14. Particulate matter emissions from the dicing and cutting operations are

- controlled using one (1) baghouse (identified as BH-4), which exhausts at stack EU-04/BH-4. Particulate emissions from the milling operations are controlled using one (1) baghouse (identified as BH-10), which exhausts at stack EU-04/BH-10.
- (e) One (1) FCM production department, located in building 107, consisting of two (2) extrusion lines, blending operations, dicing and cutting, having a maximum production capacity of 350 pounds per hour, with particulate matter emissions controlled using one (1) baghouse (identified as BH-13), exhausting at stack EU-05/BH-13.
 - (f) One scrap plastic granulation facility, located in building 102, for granulation and blending operations, having a maximum production capacity of 2,500 pounds per hour, with particulate matter emissions controlled using one (1) baghouse (identified as BH-12), exhausting at stack EU-06/BH-12.
 - (g) Material storage and handling for plastic granules and powders, consisting of three (3) powder storage silos and a pneumatic conveyance system, with particulate matter emissions controlled using three (3) baghouses (identified as BH-5, BH-6 and BH-7); exhausting at stacks EU-07/BH-5, EU-07/BH-6, and EU-07/BH-7 and thirteen (13) cyclones (identified as C-A through C-M). These baghouses and cyclones are considered to be integral to the process.
 - (h) One (1) portable pneumatic sandblasting unit used for calender roll etching with particulate matter emissions controlled by a cyclone and dust collector.
 - (i) One (1) 1.0 MMBtu per hour, natural gas-fired, high-pressure boiler (identified as H-1), with emissions exhausting at stack EU-09/H-1.
 - (j) One (1) 0.75 MMBtu per hour, natural gas-fired, low-pressure boiler (identified as H-2), with emissions exhausting at stack EU-09/H-2.
 - (k) One (1) 2.45 MMBtu per hour, natural gas-fired oil heater (identified as H-3), with emissions exhausting at stack EU-09/H-3.
 - (l) Six (6) natural gas-fired, process line dryers: three (3) dryers each having a maximum rated heat input of 0.14 MMBtu per hour and three (3) dryers each having a maximum rated heat input of 0.20 MMBtu per hour.
 - (m) Organic solvent degreasing operations using cold cleaner degreaser units.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

New emission units and pollution control equipment include:

- (a) One (1) squaring saw located in the flat stock production area with one (1) baghouse (identified as BH-15) used to control particulate matter emissions.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) CP PC(43)1513, issued on March 22, 1982;
- (b) OP 085-00026, issued on December 18, 1991;
- (c) CP 085-2424-00026, issued on May 9, 1994; and
- (d) Amendment 085-9676-00026, issued on December 7, 1998.

All conditions from previous approvals were incorporated into this permit.

Air Pollution Control Justification as an Integral Part of the Process

The company has submitted the following justification such that the baghouses (identified as BH-5, BH-6, and BH-7) and cyclones (identified as C-A through C-M) be considered as an integral part of the pneumatic conveyor system:

- (a) The pneumatic conveyance system cannot operate without the control equipment; and
- (b) The control equipment's primary purpose is not pollution control.

IDEM, OAQ has evaluated the justifications and agreed that the baghouses and cyclones identified above will be considered as an integral part of the pneumatic conveyance system. Therefore, the permitting level will be determined using the potential to emit after the baghouses and cyclones. Operating conditions in the proposed permit will specify that these baghouses and cyclones shall operate at all times when the pneumatic conveyance systems are in operation.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
EU-01/BH-11	Profile Extrusion	3	1.667	1,000	Ambient
EU-0/BH-15	Flat Stock Production	11	7 x 22 x 3 inches	5,823	Ambient
EU-03/BH-9	Calender Production	10	2.5	12,800	Ambient
EU-04/BH-10	Dicer Production	10	2.5	12,800	Ambient
EU-04/BH-4	Dicer Production	8	1.0	1,400	Ambient
EU-05/BH-13	FCM Production	12	0.95 x 1.4	3,800	Ambient
EU-06/BH-1	Blending Operations	3	0.83 x 1.0	3,500	Ambient
EU-06/BH-14	Blending Operations	14	1.13 x 1.7	8,100	Ambient
EU-06/BH-2	Flat Stock Production	12	0.54	1,100	Ambient
EU-06/BH-8	Flat Stock Production	27	3	12,800	Ambient

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
EU-06/BH-12	Scrap Plastic Granulation	8	0.833	1,000	Ambient
EU-07/BH-5	Pneumatic Conveyance System	69	0.5	1,220	Ambient
EU-07/BH-6	Pneumatic Conveyance System	69	0.5	1,220	Ambient
EU-07/BH-7	Pneumatic Conveyance System	69	0.5	1,220	Ambient
EU-07/C-A	Pneumatic Conveyance System	16	1.5	2,000	Ambient
EU-08/C-B	Pneumatic Conveyance System	24	1.667	2,000	Ambient
EU-08/C-C	Pneumatic Conveyance System	26	1.667	2,000	Ambient
EU-08/C-D	Pneumatic Conveyance System	26	1.667	2,000	Ambient
EU-08/C-E	Pneumatic Conveyance System	23	1.667	2,000	Ambient
EU-08/C-F	Pneumatic Conveyance System	23	1.667	2,000	Ambient
EU-08/C-G	Pneumatic Conveyance System	22	1.667	2,000	Ambient
EU-07/C-H	Pneumatic Conveyance System	22	1.667	2,000	Ambient
EU-07/C-I	Pneumatic Conveyance System	22	1.667	2,000	Ambient
EU-07/C-J	Pneumatic Conveyance System	18	1.667	2,100	Ambient
EU-08/C-K	Pneumatic Conveyance System	18	1.667	2,100	Ambient
EU-08/C-L	Pneumatic Conveyance System	27	1.667	2,000	Ambient
EU-08/C-M	Pneumatic Conveyance System	27	1.667	2,000	Ambient
EU-09/H-1	High-Pressure Boiler	25	2	NA	Ambient
EU-09/H-2	Low-Pressure Boiler	27	1.67	NA	Ambient
EU-09/H-3	Oil Heater	58	1.167	NA	Ambient

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 21, 2001, with additional information received on May 14, 2001

Emission Calculations

See Appendix A of this document for detailed emissions calculations (page 1 through 12).

Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	169.1
PM-10	31.7
SO ₂	0.014
VOC	0.416
CO	1.92
NO _x	2.29

HAP's	Potential To Emit (tons/year)
Glycol Ether	0.26
TOTAL	0.26

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM-10, SO₂, VOC, CO and NO_x are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM-10 and PM are greater than 25 tons per year, therefore, the source is subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year, therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Kosciusko County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Kosciusko County has been classified as attainment or unclassifiable for PM-10, SO₂, CO and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	6.7
PM10	1.9
SO ₂	0.014
VOC	0.416
CO	1.92
NO _x	2.29

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on data provided by the source.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	0.0011	0.00	0.00	0.00	0.00	0.00
PSD Threshold Level	250	250	250	250	250	250

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit MSOP 085-14149-00026, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

The natural gas-fired boilers, identified as H-1 and H-2, are not subject to the requirements of the New Source Performance Standard (NSPS) 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial - Commercial - Institutional Steam Generating Units (326 IAC 12), because these boilers have maximum heat input capacities less than the 10 MMBtu per hour applicability threshold.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.
- (c) The degreasing operations are not subject to the requirements of the National Emission standards for Hazardous Air Pollutants (NESHAPs), Subpart T because the source does not use halogenated solvents.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Kosciusko County and the potential to emit CO, VOC, NOx, PM-10 and SO₂ is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this plastic compounding plants will emit less than 10 tons per year of a single HAP and less than 25 tons per year of any combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

This source does not have potential VOC emissions equal to or greater than twenty five (25) tons per year, therefore this source is not subject to the provisions of 326 IAC 8-1-6.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the profile extrusion production department, the flat stock production department, the calendar production department, the dice production department, the FCM production department, the scrap plastic granulation facility, the sandblasting unit and the pneumatic conveyance systems shall be limited as follows:

Process/Facility	Process Weight (Tons/hr)	PM Emission Limit (Pounds/hr)
Profile Extrusion Production Department	0.5	2.58
Flat Stock Production Department	2.66	7.9
Calender Production Department	0.875	3.7
Dice Production Line	3.0	8.6
FCM Production Department	0.175	1.3
Scrap Plastic Granulation Facility	1.25	4.8
Sandblasting Unit	0.24	1.6
Pneumatic Conveyance Systems:		
C-A	10	19.2
C-B through C-I, C-L and C-M	0.225	1.5
C-J and C-K	0.7	3.2
BH-5	0.43	2.3
BH-6	0.56	2.8
BH-7	0.88	3.8

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The baghouses and cyclones shall be in operation at all times the source is in operation, in order to comply with this limit.

326 IAC 8-3-2 (Cold Cleaner Operations)

The organic solvent degreasing operations are subject to the provisions of 326 IAC 8-3-2 (Cold Cleaner Operations) because they were constructed after 1980.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The organic solvent degreasing operations are not subject to the provisions of 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) because they were constructed prior to 1990.

326 IAC 6-2-3 (Particulate Matter Emission Limitations for Sources for Indirect Heating)

Pursuant to 326 IAC 6-2-3(e), the PM emissions from each boilers shall be limited to 0.6 pounds per MMBtu heat input.

This limit is less than the limit calculated using the equation in 326 IAC 6-2-3:

$$P_t = \frac{c \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where: c = 50Fg/m³
P_t = Emission rate limit (lbs/MMBtu)
Q = Total source heat input capacity (1.75 MMBtu/hr)
N = Number of stacks (2)
a = Plume rise (0.67)
h = Stack height (ft)

The weighted stack height was calculated as follows:

$$h = \frac{(25 \text{ ft}) (0.033 \text{ tons / yr}) (1.00 \text{ MMBtu / hr}) + (27 \text{ ft}) (0.025 \text{ tons / yr}) (0.75 \text{ MMBtu / hr})}{(0.033 \text{ tons / yr}) (1.00 \text{ MMBtu / hr}) + (0.025 \text{ tons / yr}) (0.75 \text{ MMBtu / hr})}$$

where: h = 25.7 ft

Note: H-1 has a stack height of 25 ft. and PM emissions of 0.033 tons per year.
H-2 has a stack height of 27 ft. and PM emissions of 0.025 tons per year.

The PM limit calculated using these formulas is 6.2 pounds per MMBtu heat input. This limit is greater than 0.6 pounds per MMBtu; therefore, the limit specified in 326 IAC 6-2-3(e) has been applied to the boilers.

Conclusion

The construction and operation of this plastic compounding plant shall be subject to the conditions of the attached proposed Minor Source Operating Permit 085-14149-00026.

Appendix A: Emissions Calculations
Natural Gas-Fired High-Pressure Boiler (H-1)

Page 1 of 12 TSD App A

MM BTU/HR <100

Small Industrial Boiler

Company Name: Spartech Plastics
Address City IN Zip: Warsaw, Indiana 46581
CP: 085-14149
Plt ID: 085-00026
Reviewer: ERG/AB
Date: 5/18/01

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

1.00

8.8

Pollutant						
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.033	0.033	0.003	0.438	0.024	0.368

*PM emission factor is filterable and condensable PM.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

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**Appendix A: Emissions Calculations
Natural Gas-Fired High-Pressure Boiler (H-1)**

Page 2 of 12 TSD App A

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Spartech Plastics

Address City IN Zip: Warsaw, Indiana 46581

CP: 085-14149

Plt ID: 085-00026

Reviewer: ERG/AB

Date: 5/18/01

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.198E-06	5.256E-06	3.285E-04	7.884E-03	1.489E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.190E-06	4.818E-06	6.132E-06	1.664E-06	9.198E-06

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

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Appendix A: Emissions Calculations
Natural Gas-Fired Low-Pressure Boiler (H-2)

MM BTU/HR <100

Small Industrial Boiler

Company Name: Spartech Plastics
Address City IN Zip: Warsaw, Indiana 46581
CP: 085-14149
Plt ID: 085-00026
Reviewer: ERG/AB
Date: 5/18/01

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

0.75

6.6

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.025	0.025	0.002	0.329	0.018	0.276

*PM emission factor is filterable and condensable PM.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas-Fired Low-Pressure Boiler (H-2)**

Page 4 of 12 TSD App A

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Spartech Plastics

Address City IN Zip: Warsaw, Indiana 46581

CP: 085-14149

Plt ID: 085-00026

Reviewer: ERG/AB

Date: 5/18/01

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	6.899E-06	3.942E-06	2.464E-04	5.913E-03	1.117E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.643E-06	3.614E-06	4.599E-06	1.248E-06	6.899E-06

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations

Natural Gas-Fired Oil Heater (H-3)

MM BTU/HR <100

Small Industrial Boiler

Company Name: Spartech Plastics

Address City IN Zip: Warsaw, Indiana 46581

CP: 085-14149

Plt ID: 085-00026

Reviewer: ERG/AB

Date: 5/18/01

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

2.45

21.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.082	0.082	0.006	1.073	0.059	0.901

*PM emission factor is filterable and condensable PM.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas-Fired Oil Heater (H-3)**

Page 6 of 12 TSD App A

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Spartech Plastics

Address City IN Zip: Warsaw, Indiana 46581

CP: 085-14149

Plt ID: 085-00026

Reviewer: ERG/AB

Date: 5/18/01

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.254E-05	1.288E-05	8.048E-04	1.932E-02	3.649E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.366E-06	1.180E-05	1.502E-05	4.078E-06	2.254E-05

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

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Appendix A: Emissions Calculations

Natural Gas-Fired Dryers

MM BTU/HR <100

Small Industrial Boiler

Company Name: Spartech Plastics

Address City IN Zip: Warsaw, Indiana 46581

CP: 085-14149

Plt ID: 085-00026

Reviewer: ERG/AB

Date: 5/18/01

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

1.02

8.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	7.6	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.034	0.034	0.003	**see below	0.025	0.375

*PM emission factor is filterable and condensable PM.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
Natural Gas-Fired Oil Heater (H-3)**

Page 8 of 12 TSD App A

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Spartech Plastics

Address City IN Zip: Warsaw, Indiana 46581

CP: 085-14149

Plt ID: 085-00026

Reviewer: ERG/AB

Date: 5/18/01

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	9.382E-06	5.361E-06	3.351E-04	8.042E-03	1.519E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.234E-06	4.914E-06	6.255E-06	1.698E-06	9.382E-06

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
VOC Emissions
Solvent Usage

Page 9 of 12 TSD App A

Company Name: Spartech Plastics
Address City IN Zip: Warsaw, Indiana 46581
CP: 085-14149
Pit ID: 085-00026
Reviewer: ERG/AB
Date: 5/18/01

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Cleaning Solvent	8.6	94.50%	83.2%	11.3%	85.5%	5.50%	0.55000	0.125	6.64	0.97	0.07	1.59	0.29	0.00	17.57	100%

State Potential Emissions

0.07 1.59 0.29 0.00

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

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Appendix A: Emission Calculations

Page 10 of 12 TSD AppA

HAP Emission Calculations

for Solvent Usage

Company Name: Spartech Plastics**Address City IN Zip: Warsaw, Indiana 46581****CP: 085-14149****Pit ID: 085-00026****Reviewer: ERG/AB****Date: 5/18/01**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Glycol Ether	Glycol Ethers Emissions (ton/yr)
Cleaning Solvent	8.55	0.550000	0.13	10.00%	0.26

Total State Potential Emissions

0.26**METHODOLOGY**
$$\text{HAPS emission rate (tons/yr)} = \text{Density (lb/gal)} * \text{Gal of Material (gal/unit)} * \text{Maximum (unit/hr)} * \text{Weight \% HAP} * 8760 \text{ hrs/yr} * 1 \text{ ton/2000 lbs}$$

Pneumatic Conveyors**Company Name: Spartech Plastics****Address City IN Zip: Warsaw, Indiana 46581****Part 70 Permit #: 085-14149****Pit ID: 085-00026****Reviewer: ERG/AB****Date: 5/18/01**

Bag House	Efficiency (%)**	PM Collected (lbs/hr)**	Number of Operation Hours**	Max. PM Collected (tons/year)	% PM-100	% PM-10	Potential PM-100 Emissions Before Controls (tons/year)	Potential PM-100 Emissions Before Controls (tons/year)	Maximum Potential PM-100 Emissions After Controls (tons/year)	Maximum Potential PM-10 Emissions After Controls (tons/year)
BH-5	99.9	863.10	1,920.00	3,780.38	14.80	2.80	560.06	105.96	0.5601	0.1060
BH-6	99.9	1,119.05	1,920.00	4,901.44	37.70	16.80	1,849.69	824.27	1.8497	0.8243
BH-7	99.9	1,759.26	1,920.00	7,705.56	57.00	10.00	4,396.57	771.33	4.3966	0.7713
Total		3,741.41		16,387.38			6,806.31	1,701.55	6.81	1.70

** Based on data provided by facility for 2032 hours of operation per year.

Note : The baghouses and the cyclones to which they are connected (C-a through C-m) are considered to be integral to the pneumatic conveyor system.

Methodology :

PTE Before Controls (tons/yr) = PM Collected (tons/yr) / Efficiency (%)

PTE After Controls (tons/yr) = Max. PTE before Controls (tons/yr) * (1 - Efficiency (%))

Appendix A: Emissions Calculations
Particulate Matter Emissions

Company Name: Spartech Plastics
Address City IN Zip: Warsaw, Indiana 46581
Part 70 Permit #: 085-14149
Pit ID: 085-00026
Reviewer: ERG/AB
Date: 5/18/01

Bag House	Efficiency (%)**	PM Collected (tons/year)**	Number of Operation Hours	% PM-100	% PM-10	Max. Potential PM Collected (tons/year)	Maximum PTE for PM-100 Before Controls (tons/year)	PM-10 Emissions Before Controls (tons/year)	Maximum PM-100 Emissions After Controls (tons/year)	Maximum PM-10 Emissions After Controls (tons/year)
Profile Extrusion Process:										
BH-11	99.00	0.17	5,760.00	100.00	100.00	0.26	0.26	0.26	0.0026	0.0026
Flat Stock Process:										
BH-2	99.90	43.20	6,912.00	37.12	3.60	54.75	20.34	1.97	0.0203	0.0020
BH-8	99.90	9.50	6,912.00	26.22	2.26	12.04	3.16	0.27	0.0032	0.0003
BH-15	99.90	19.87	6,912.00	4.45	0.00	25.18	1.12	0.00	0.0011	0.0000
Calender Process:										
BH-1	99.90	2.98	1,920.00	84.35	21.56	13.60	11.48	2.93	0.0115	0.0029
BH-14	99.90	2.98	1,920.00	84.35	21.56	13.60	11.48	2.93	0.0115	0.0029
BH-9	99.80	7.75	1,920.00	78.60	2.80	35.36	27.85	0.99	0.0557	0.0020
Dice Process:										
BH-1 and BH-14 (see Calender Process)										
BH-4	99.80	0.64	1,920.00	100.00	100.00	2.92	2.93	2.93	0.0059	0.0059
BH-10	99.80	17.25	1,920.00	78.60	2.80	78.70	61.98	2.21	0.1240	0.0044
FCM Process:										
BH-13	99.90	0.23	3,840.00	100.00	100.00	0.52	0.53	0.53	0.0005	0.0005
Scrap Plastic Granulation Line:										
BH-12	99.90	5.28	3,840.00	0.00	0.00	12.05	0.00	0.00	0.0000	0.0000
Sand Blasting:										
Sand Blast Baghouse	99.90	1,074.29	2,032.00			4,631.29	21.00	14.80	0.0210	0.0148
Total		1,184.14				4,880.27	162.13	29.83	0.26	0.04

** Based on data provided by facility.

Methodology :

PTE Before Controls (tons/yr) = (PM Collected (tons/yr) / Efficiency (%)) * (% PM or %PM-10)

PTE After Controls (tons/yr) = Max. PTE before Controls (tons/yr) * (1 - Efficiency (%))